

NOTES ON THE BIRDS OF THE SIKKIM HIMALAYAS.

By

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Part III.

(With 3 plates.)

(Continued from page 740 of this volume.)

SUB-FAMILY—BRACHYPODINÆ.

94. The White-throated Bulbul. *Criniger tephrogenys flaveolus* (Gould).

Occurs at *low elevations* in the Tista Valley. Obtained up to 1,500' (G. E. Shaw). Nowhere does it reach the limit or anything approaching "seldom above 5,000'" as recorded by Oates. It is strictly a plains Bulbul.

95. The Himalayan Black Bulbul. *Microscelis psaroides psaroides* (Vig.). "Kaki" Paharia.

Dr. Hartert has stated the reason for this change in the generic name *Hypsipetes* now *Microscelis* (Nov. Zool., vol. xxix, 1922, pp. 366-7).

Numerous at *all elevations up to 10,000' on the Outer Ranges*. Tonglo summit at 10,000', 23-1-12*, a party of from twenty to thirty birds came to rest in a tree adjacent to the Rest House; they were very wild and only settled for a brief time. Observed around Singhik at 4,850', 13-3-20*, in a party of six or thereabouts.

96. The Brown-eared Bulbul. *Hemixus flavala flavala* (Hodgs.).

More or less locally distributed. Occurs in the Rungbong Valley up to 5,000'. Obtained in the Tista Valley up to 3,800' (G. E. Shaw).

97. The Rufous-bellied Bulbul. *Hemixus macclellandi macclellandi*. (Hodgs.).

Common from 3,400'-6,000' in the Rungbong Valley, and obtained in the Tista Valley from 3,900'-4,500' (G. E. Shaw).

98. The Striated Green Bulbul. *Alcurus striatus*. (Blyth).

Locally distributed and fairly numerous both in the *Interior and on the Outer Ranges at elevations of from 4,700'-6,000'*. Obtained above Mangpu at 5,300' (G. E. Shaw). Temi to Namchi at 6,100' 15-3-20*, much in evidence. Occurs commonly at Gopaldhara from 4,700' upwards, being strictly confined to forest.

99. The Bengal Red-vented Bulbul. *Molpastes hæmorrhous bengalensis* (Blyth).

Commonly distributed at all elevations up to 4,500' at all events, but it is very doubtful if it approaches an elevation of 7,000' as recorded by Oates. This Bulbul and the next species consort together during the cold weather at the bottom of the Rungbong Valley and are then partial to the berries of the "Panisajh" trees.

100. The White-cheeked Bulbul. *Molpastes leucogenys*. (Gray).

"Jharali", Paharia, used for all Bulbuls without discrimination.

Commonly occurs from *low elevations at 1,200'* in the Tista Valley (G. E. Shaw), and probably lower, up to *6,000'* on the *Outer Ranges*, both in East Nepal and Sikkim. Observed around Shamdong at *2,600'*, in the interior of Sikkim during February and March.

101. The Bengal Red-whiskered Bulbul. *Otocompsa emeria emeria* (L.).

In all probability does not occur much above Birik in the Tista Valley at an *elevation of 600'*, where I have observed this Bulbul. *Molpastes leucogenys* evidently takes its place on or about Tista Bridge and upwards.

102. The Black-crested Yellow Bulbul. *Otocompsa flaviventris flaviventris* (Tick.).

Widely distributed from *low levels up to 5,000'*. Obtained up to *3,000'* only in the Tista Valley. (G. E. Shaw).

103. The White-tailed Nuthatch. *Sitta himalayensis* Jard. & Selby.

Generally distributed at somewhat lower levels in the Interior of Sikkim than on the Outer Ranges. Locally migratory to some extent, descending the slopes of the mountains in the winter and ascending from the valleys with the advent of the hot weather. Observed below Gangtok at *3,100'* in early March. Singhik, *4,800'*, 24-2-20. Tonglo summit at *10,000'*, a pair seen on several occasions in January accompanying parties of Cole-Tits,—*L. rufonuchalis beavani* and *L. dichrous*. Mai "Khola," East Nepal, *8,500'*, 12-4-12, several seen this day. Tonglo, *9,000'*, 26-5-12, a pair, ♂ obtained; where they are also to be found during the S. W. monsoon. Gopaldhara, occasionally noted around the bungalow at *4,720'* at times during the "the rains" or "cold weather," never more than a pair of birds acting in concert with *Minla*, *Pseudominla*, &c., *5,800'*, ♂ ♀ 7-10-21. Obtained at elevations of from *5,500'-7,500'* above Mangpu. (G. E. Shaw.) Blanford met with it on the Cho La Range (August) at *11,000'* but met with no *Sitta* above *7,000'* in Northern Sikkim, which is also my experience in the winter.

104. The Cinnamon-bellied Nuthatch. *Sitta castaneiventris castaneiventris* Blyth.

Resident and generally distributed. Found at *all elevations up to 4,800'* around Gopaldhara, and obtained up to *3,800'* in the Tista Valley, below Mangpu. (G. E. Shaw.) *6,000'* as recorded by Jerdon and quoted by Oates is too great an extreme limit for Sikkim.

105. The Beautiful Nuthatch. *Sitta formosa* (Blyth).

The type locality is Darjiling and is thus recorded for Sikkim. Undoubtedly very rare and extremely locally distributed. I have failed to locate it. Evidently Macintosh was acquainted with it, as he quotes Senchal as being one of its haunts in his "Birds of Darjeeling." Represented in the Tring Museum by one specimen only ex. Elwes Coll., but well represented in the National Collection by specimens obtained in almost every month of the year.

106. The Velvet-fronted Blue Nuthatch. *Sitta frontalis frontalis* (Swainson).

A Plains Nuthatch. Obtained in the Tista Valley up to an elevation of 2,500'. (G. E. Shaw). Nowhere approaches to an elevation of 5,000' or higher as recorded by Oates for the Himalayas, at all events in Sikkim. This Nuthatch is distinguished from true *Sitta* by several striking structural characters and is placed in the genus *Callisitta* by Hellmayr ("Genera Avium", Wytsman.) It well might find its correct place in this last genus if numerous other genera are retained.

107. The Crow-billed Drongo. *Dicrurus annectens annectens* (Hodgs.).

Recorded for the lower levels of Nepal and Sikkim.

108. The Himalayan Black Drongo. *Dicrurus macrocercus albirictus* (Hodgs.).

Recorded for 5,000' or even higher in the Himalayas. I have no information respecting this Drongo. All my specimens of *Dicrurus* have proved to be the next species.

109. The Himalayan Grey-Drongo. *Dicrurus leucophæus stevensi* Stuart Baker.

Recorded for the Himalayas "found as high as 10,000' ". Generally distributed at moderate elevations to higher limits. The common Drongo in the Darjeeling District. Occurs around Gopaldhara at 5,000', as a breeding resident, also occurs plentifully in the Tista Valley at elevations of from 3,000'-3,750'. (G. E. Shaw), Thurbo, 4,500', 10-5-15*. Four King Crows observed mobbing a pair of Owls (*Glaucidium cuculoides*).

110. The White-bellied Drongo. *Dicrurus cærulescens* (L.).

Recorded for the Himalayas up to about an elevation of 6,000'. I have no information respecting this Drongo. If it has any status in these hills, it is not likely to be overlooked, being a well-marked species. The series in the B. M. Coll. contains no specimen from the Sikkim Himalaya.

111. The Bronzed Drongo. *Chaptia ænea ænea* (Vieill.).

Generally distributed. Occurs up to 5,000' at all events in the Rungbong Valley. Not obtained above 3,000' in the Tista Valley. (G. E. Shaw).

Probably occurs much higher, though Gammie found it breeding only at 2,000'.

112. The Hair-crested Drongo. *Chibia hottentotta hottentotta* (L.).

Sparingly distributed at the bottom of the Rungbong Valley from 3,500'-3,700', and when the "Falada" trees are in flower, comes up to the Bw. elevation of 4,720'; 26-27-10-15*, a pair, 11-9-20*, a pair, 17-9-21*, several in evidence, many even higher on occasions at 5,200', 1-2-21*, noted hereabouts. As many as forty birds seen in the "simal" (*Bombax*) trees at Namsoo at 3,000' on the 18-5-15*. Obtained up to an elevation of 1,900' in the Tista Valley. (G. E. Shaw). Young birds ready to leave the nest by the end of June, or the first week in July; a specific date being the 25-6-23, when two youngsters were brought in at Gopaldhara.

113. The Indian Lesser Racket-tailed Drongo. *Bhringa remifer tectirostris* Hodgs.

Confined to the hot, moist, deep valleys. Observed around Dikchu at 2,150' in the interior of Sikkim, in February and March. 5,000' as recorded by Oates is too great an extreme limit in general for Sikkim, though Gammie mentions it nesting at Rishap (Rashab) in the Tista Valley at 4,800'.

114. The Assam Racket-tailed Drongo. *Dissemurus paradiseus grandis* (Gould).

Extends up the Tista Valley to at least 1,000' (G. E. Shaw), but probably not far into the interior. Absent around Dikchu at 2,150', in February and March 1920.

115. The Nepal Tree-Creeper. *Certhia familiaris nipalensis* Blyth.

This Tree-Creeper is strictly sedentary, but on occasions descends to lower limits to some modified extent under stress of severe weather.

Recorded for 13,000', Pine forests, in September, North Sikkim. (Blanford).

Generally distributed from 8,000' to 12,000'. Observed below Sookia Pokhari at 6,500' ♂ ♀ 18-1-12.* Occurs on Tonglo and Sandakphu summits throughout the winter, when it is then partial to the dwarf birch trees on the bare mountain slopes, generally in pairs, accompanying a foraging party of Cole-Tits: *Parus ater aemodius*, *P. rufonuchallis beavani* and *L.d. dichrous*. Tonglo, 9,000' to 10,074', summit level, a series of three ♂ ♂, five ♀ ♀, collected in January 1912.

Karponang at 11,000', in March 1917, only an occasional bird seen, and evidently far from common in the Pine forests during the winter.

Six specimens examined:

♂ Bill from feathers, at base 14; wing 68-69, av. 68·5.

♀ " " " " 11-12, av. 11·8; wing 65-66, av. 65·5.

Soft parts: Iris, brown; bill, black on upper mandible, white on lower mandible; tarsus, horny.

116. The Sikkim Tree-Creeper. *Certhia discolor discolor* Blyth. "Soolsooli", Paharia.

Commonly occurs in the *Rungbong Valley* from 3,500'-6,000' in the "cold weather," but seldom if ever observed in "the rains." Obtained in the Tista Valley around Mangpu at elevations of from 3,000'-4,500'. (G. E. Shaw). In the interior observed at *Shamdong* at 2,300', 15-3-20. Apparently does not overlap with *C. familiaris nipalensis* in its zonal distribution. Gopaldhara, 5,800', ♂ 5-2-21. 5,000', ♀ 16-2-18. 4,720', 16-7-21*, a pair came into the compound in company with *Parus monticolus*, *Zosterops*, *Phylloscopus*, &c., 5800', a single bird observed in the forest 13-5-23, was most probably the pair to a breeding bird.

Eight specimens examined:

♂ Bill from feathers at base 14-15, av. 14·5; wing 67-70, av. 68·8.

♀ " " " " 12-13, " 12·4; " 64-67·5, " 66-2.

Soft parts: Iris brown; bill upper mandible dark horny, lower mandible pale horny, dark at tip, gape inside pale fleshy; tarsus dark fleshy-horny.

117. Stoliczka's Tree-Creeper. *Certhia stoliczkæ* Brooks.

Fairly common from 9,000' to 10,000' on the *Singile La Ridge*, January to May; specimens secured both in Nepal and Sikkim. Obtained as low as 6,500', on the *Semana-Mirik Ridge*, ♀ 7-2-18. Ghoom to Sookia Pokhari, 7,100', 13-12-13,



H. S. Photo.

THE RIDGES OF EAST NEPAL.
Looking west from Phalut, February, 1912.



H. S. Photo.

“THE SNOWS” AND PINE FORESTS.
Abies webbiana, Silver Firs of Hooker.
From Sandakphu, March, 1912.

several observed along the forest road. Tonglo, 10,000', ♂ 27-1-12. ♀ 28-1-12. ♂ 9-2-12. Kalo Pokhari, 10,160', ♂ ♀ 19-4-12, ♀ 21-3-12. ♂ 23-5-12. Observed around Lachung at 8,800' in February and March.

Five specimens examined:

♂ Bill from feathers at base 12; wing 74-76, av. 75.

♀ " " " " " 12; " 68-71, " 69.5.

Soft parts: Iris brown; bill, upper mandible dark horny, lighter towards the tip, lower mandible pale horny, darkening towards the tip and edge in contact with upper mandible; tarsus pale horny.

Certhia himalayana himalayana Vig., is stated by Dresser, Hartert, Stuart Baker and others to have an extensive distribution throughout the Himalayas—Kashmir to Kansu in Western China. Oates strictly confined this typical form to the N. W. Himalayas—Gilgit, Almora, &c. No trace of this Tree-Creeper occurring in the Sikkim Himalaya has come to my knowledge. It is not represented in the Tring Museum from Sikkim, and notwithstanding the fact that there is one specimen from Darjeeling collected by one of the Marshalls and also one specimen from Nepal.—*ex* Hodgson Coll. in the B. M. series, for which information I am indebted to Mr. N.B. Kinnear—there surely must be an error in the locality on the label of the Darjeeling? skin. Col. C. H. T. Marshall refers to its breeding habits at Murree. (Hume's Nests and Eggs, Oates, Vol. I, page 220.) The Sikkim Himalaya holds three well-defined species with fairly distinct zonal distribution limits. It appears to have a discontinuous distribution in the Eastern Himalayas.

If my surmise is not correct, it is surprising such a paucity of specimens from this area exist in representative collections.

118. The Wall-Creeper. *Tichodroma muraria* (L.).

The Wall-Creeper may be found *during the winter at diverse altitudes* in suitable localities, though it is rare and of uncertain occurrence.

Obtained at Mangpu, 3,800', 21-11-19. (G.E. Shaw). Jalapahar, 7,500', ♀ 13-2-20. Sandakphu, Nepal side of the Frontier at 11,800', 7-3-12,* a single bird observed this morning, foraging on the face of a huge boulder, rather wild and difficult of approach once it was aware of my presence. Hereabouts, these rocks seemed most suitable haunts for Wall-Creepers, yet this was the only occasion I met with it. Lachung, circum. 9,000', odd birds observed on the rocky slopes of the valley during February and March 1920. One observed in the stony bed of the La chu at 8,800', 10-3-10*, had assumed the black throat associated with the adult in summer plumage. Three observed above Bhotan Ghat in the Raidak Gorge in January 1922, two of which were secured.

Three specimens examined:

♂ Bill from feathers at base 25; wing 109. ♂. Bill 24, damaged in the other example. Wing 102 in both cases. Compared with two females from the North frontier of Assam. Bill 25; wing 102-103. prove these measurements to be fairly constant. The spots on the outer primaries and tail vary in size and number individually in the adult, and the ochreous spot on the inner primaries is sometimes retained at maturity.

♀ (Assam). 2nd-5th primary, two spots, all white and large, 6th primary, one upper white spot. ♀ 2nd-4th, similar, 5th, merely an indication of the upper white spot, 6th, tinged ochreous, 7th, ochreous, 8th, merely an indication of an ochreous spot.

♂ (Bhotan Dooars). 2nd-5th, two spots all white and small, another ♀ from the same locality somewhat similar.

♀ (Darjeeling). 2nd-5th spots white, all lower ones small, upper spots large, 6th, upper spot only; ochreous lower half, remainder white. 7th-9th, single spots only, entirely ochreous.

119. Hume's Wedge-billed Wren. *Sphenocichla humei* (Mand.).

Recorded for Sikkim. Undoubtedly rare, with a restricted distribution. Specimens in the Tring Museum labelled Namchi, probably came from Tendong above this place.

120. The Nepal Wren. *Troglodytes troglodytes nipalensis* Blyth.

Resident on the *Singile La Ridge* at elevations of from 9,000'-12,000', numerous at this extreme limit in winter. In the interior of Sikkim at Lachung, occurs at an elevation of 8,800' in the valley during February and March. Karponang, 10,000' and above, on the slopes of the mountains during March. Once obtained amongst the rocks on Jalapahar at 7,500' ♂ 14-2-20, which is food for speculation as the Senchal to Darjeeling Ridge is quite isolated from the main bulk of the higher ranges, and it would mean a lengthy flight if such was the case, to avoid the valleys for a sedentary resident. It frequents the rocky beds of mountain streams, fallen decaying trees in the pine forests, equally at home amongst the snow in inhospitable depths of the forest or the precincts of the flimsy dwellings of the shepherds. In the village of Lachung, it was partial to the crevices of the stone walls which demarcated the plots of rudely cultivated land. Tonglo, 9,000'-10,000', 24th January to the 4th of February 1912, 3 ♂♂, 2 ♀♀ secured. Sandakphu to Saburkum 11,500', ♂ 16-2-12. Kalo Pokhari, 10,160' ♂ 4-3-12.

Karponang, 10,000', ♂ 17-3-17. Lachung, 8,800', ♀ 27-2-20, not observed in the winter beyond a three-mile limit above the village, along the path to Yumthang.

Eight specimens examined :

♂ Bill from feathers at base 10-11, av., 10·6 ; wing 51-53, av. 52·6.

♀ " " " " 10·5-11·5, av. 10·8 ; wing 50-53, av. 51·6.

The female average is brought up with the large dimensions of a Lachung specimen. Bill 11·5 ; wing, 53.

121. The Spotted Wren. *Elachura formosa* (Walden).

Recorded "high elevations in Sikkim." I anticipate this Wren will eventually be located along the foot-hills and probably in the bottoms of the valleys of the interior, at all events during the winter, with a similar habitat to *Præpyga pusilla*.

122. The Tailed Wren. *Spelæornis caudata* (Blyth).

Recorded for Sikkim at considerable altitudes. Obtained at Jore Pokhari, 7,400'. (C.M. Inglis). Represented in the B.M. Coll. by a fine series collected by Mandelli with nothing more definite in regard to the exact localities than "near Darjeeling."

123. The Slaty-bellied Shortwing. *Tesia cyaniventer* Hodgs.

Generally distributed in forested country with a sufficiency of undergrowth from the plains level up to 6,000', and apparently not resident around Gopaldhara at 4,700', as it has only been noticed hereabouts at the breeding season from the end of March or thereabouts and onwards.

Eleven specimens examined from the Eastern Himalayas.

♂ Bill from base 14-14·5, av. 14·3 ; wing 47·5-49, av. 48·9.

♀ " " " 13-13·5, av. 13·3 ; wing 44-48, av. 46·3.

One specimen, collected in the Plains of Upper Assam at Rungagora in the Dibrugarh District, ♂ 10-1-04, has the crown concolorous with the back and the whole of the underparts from the chin to the vent pale slaty-blue. This phase ♀ has always puzzled me, as I do not consider it referable to the male juvenile stage of this species; the bill, tarsus and hind claw are stronger than in any of the other previously measured specimens.

Bill from base 16; wing 49; tarsus 25; hind claw 7.

It is very near to *Tesia cyaniventris superciliaris*, La Touche, after comparison with the type.

"Very close to the female of typical *T. cyaniventris*, but with a much more pronounced and purer black eye-stripe and lores, and with a short, pure grey stripe just behind the eye, between the yellowish supercilium and the black eye-stripe. A bird from Manipur in the British Museum Collection is very similar, but lacks the post-orbital grey stripe and is paler below."

Ibis July 1923, pp. 369, 370. "On the Birds of South-East Yunnan, S. W. China." (S. D. La Touche, M. B. O. U.)

♂ Soft parts: (June.) Iris brown; bill upper mandible blackish-horny, lower mandible and inside gape, reddish-orange; tarsus, dark olivaceous; claws horny.

124. The Chestnut-headed Shortwing. *Tesia castaneo-coronata castaneo-coronata* (Burton).

This Shortwing seems to me to be entitled to generic rank, but as Dr. Hartert has shown, (Novitates Zoologicae, Vol. XVII, 1920, page 480) *Oligura* cannot stand. Apart from coloration which may have no significance in the definition of genera; the remarkable bill of *Tesia cyaniventer* appears to be a sound structural character for generic distinction and congeneric with this species is *Pseudoenicus superciliaris* (Bp.). Type Locality, Java, whereas *Tesia castaneo-coronata* has a totally different, slender and narrow bill; which was one of the reasons given by Oates for keeping them generically separated. It is found at all elevations from the foot of the hills in "the cold weather," up to 10,000' or higher in summer. Blanford records it from Northern Sikkim at elevations of from 7,000'-10,000'. Observed on the Singile La Ridge at Kalo Pokhari at 10,160', in May. Mai ("Khola") Valley, East Nepal, 8,000' upwards, ♂ 9-4-12, ♂ 7-5-12. Bhotan Ghat, Raidak River, Eastern Dooars, ♀ ♀ 22-24-1-22, others seen. Gopaldhara, Rungbong Valley, 3,550', 22-3-11*, noted on several occasions afterwards, more in evidence than *T. cyaniventer*. It is more addicted to frequenting the ground than its former ally and hops about the rocks in like manner to a wren. 4,700', ♂ 29-10-16, 7-4-16* 4,800', ♀ 1-11-18. 5,000', ♀ 17-2-18. 5,900', ♂ 17-2-18. Mangpu, 3,800', 26-3-15*, in scrub-growth. Rashab, Tista Valley, 4,500', 15-3-20*, in bamboo forest.

Eight specimens examined and compared with four Assam skins:

♂ Bill from feathers at base 9.5-10, av. 9.6; wing 47.5-50, av. 48.4.

♀ " " " " 10, av. 10; wing 46.48-5, av. 47.7.

These females show a tendency to have a slightly stronger bill, which is the reverse case in my specimens of *Tesia cyaniventer*.

125. The Scaly breasted Wren. *Pnæpyga squamata* (Gould).

Blanford records it from northern Sikkim at 9,000'. It occurs in limited numbers from 5,000'-10,000' on the Outer Ranges according to season. Obtained in the Tista Valley at 3,000'-5,900', (G.E. Shaw). Resembles a small rodent as it searches the ground in quest of food, most fearless, as on occasions it may come up to one's feet; neither is it easily dislodged from the crevices in which it takes shelter when approached, in this respect is similar to *Troglodytes nipalensis*.

Six specimens examined:

♂ Bill from feathers at base 10.11, av. 10.8; wing 58.63, av. 61.5.

♀ " " " " " 10.11, av. 10.5; wing 59.5.62, av. 60.8.

The tertiaries in five adults are tipped with fulvous as in *P. pusilla*, a character of no consequence in discriminating between the two species; the difference in size being, however, quite sufficient for this purpose.

126. The Brown Wren. *Pinæpyga pusilla* Hodgs.

Sparingly distributed from the base of the hills up to an elevation of 6,500' or thereabouts; there is an overlapping to some extent in the breeding range of both this wren and its near ally. Obtained on the Semana-Mirik Ridge at 6,250', 18.2.18, and also on Tonglo (C. M. Inglis) at 10,000', most likely a straggler. Gopaldhara, 4,700', 28.2.21*. 5,500', ♂ 14.4.21. Bhotan Ghat. Raidak River. Eastern Dooars, ♀ 20.1.22. Obtained at Mangpu at 3,600', (G. E. Shaw).

Two specimens examined: ♂ Bill from feathers at base 11; wing 53.

♀ " " " " " 9.5; wing 49.

In these two adults, "correctly" sexed, ♂ testes in advanced development; the usual distinguishing character in colour between the two sexes is reversed: the whole of the lower plumage in the male being fulvous, while the female is in the pale phase, which is regarded as the normal coloration of the male. All specimens, if sexed with absolute certainty, will eventually help to solve this interesting problem.

127. The Himalayan Goldcrest. *Regulus regulus himalayensis* Jerd.

Sparingly distributed on the Singile La Ridge during the winter at 10,000'. In the interior of Sikkim occurs at this period of the year at 9,000' in the bed of the valleys, and though by no means numerous, is apt to be overlooked, or its identity mistaken if intermingled with *Phylloscopi*. Tonglo, 10,000', Nepal side of the Frontier, ♂ ♂ ♀, 25.1.12, the only occasion on which the Goldcrest was observed, these three birds were keeping up a lively commotion during a bright afternoon amongst the flowers of a stunted tree (*Daphne cannabina*). Lachung, 9,500', ♂ ♂ ♀, 7.3.20. secured out of a party of eight to ten individuals accompanied with Cole-Tits: *Parus ater aemodius* and *P. rufonuchalis beavani*, in light mixed tree-growth, Larch predominating, below the main belt of the Pine forests.

Five specimens examined:

♂ Bill from feathers at base 7.7.5, av. 7.3; wing 56.58, av. 57.

♀ " " " " " 7, av. 7; wing 54.55, av. 54.5.

Soft parts: Iris brown; bill black; tarsus brownish-ochreous; toes and claws paler ochreous.

128. The Fire-cap. *Cephalopyrus flammiceps* (Burton).

Evidently locally distributed and by no means numerous, if indeed not actually rare. Obtained on four occasions in the Tista Valley at elevations of from 3,400'-3,700', 16.23.2-19, 3,850', 23.2.18. (G. E. Shaw).

Rungpo, Tista Valley, 1,250', 19.2.20*. A party of twelve to fifteen counted at rest on the naked branches of a shade! tree near the road-side on the Sankokhola road. On their taking flight they were more like Munias or Finches. I observed them very carefully at close quarters under a powerful glass and could hardly have made any mistake. So far I have failed to meet with it around Gopaldhara, and it may only be confined to moderate elevations in the Tista Valley. It is represented from Sikkim in the B. M. Coll. by 3 ♂ ♂, February and March.

Acrocephalus agricola sub-sp. nov.

Acrocephalus stentorea sub-sp. nov.



H. S. Photo.

VALLEY IN NEPAL, below Phalut. February, 1912.



H. S. Photo.

TONGLO, near the summit level of 10,074'. January, 1912.

Haunts of *Urocissa flavirostris*, *Nucifraga hemispila*, *Trochalopteron affinis*,
Ixops nipalensis, *Yuhina gularis*, *Fulvetta vinipecta*, *Phenicurus schisticeps*,
P. frontalis, *Perissospiza icteroides affinis*, *Pyrrhula erythrocephala*,
Carpodacus rhodochroa, *Callacanthus burtoni*, &c., &c.



H. S. Photo.

MAI ("KHOLA") VALLEY, East Nepal, from Kalo Pokhari.
 Rhododendrons in bloom. April, 1912.

In my "Notes on the Birds of Upper Assam," B. N. H. S. Vol. XXIII, page 247, I recorded the first mentioned Reed-Warbler under the typical form. The winter migrants to Assam have been considered to be the eastern race "*concinens*" (Swinh.). In recent years a breeding bird has been described from (1920-Kaghan) North-west India, i.e., "*haringtoni*" Witherby.

I have made a further examination of my Assam skins and eggs, which has resulted in an interesting discovery that there are two races of *Acrocephalus* breeding on the "churs" of the Subansiri River in Upper Assam; the larger bird is a race of "*stentorea*" and the smaller bird is a race of "*agricola*." Specimens obtained in January at Gogaldhubie, ♂ 10-1-05, wing, 60. Boduti, ♂ 13-1-11, wing, 57.5. In both specimens 1st primary, 12, "narrow." These birds are paler on the underside compared with specimens from Hessamara obtained in April which have a decided rufous tinge on the underside, ♂ 11-4-15, wing, 53, ♂ 9-4-05, wing, 49.5. 1st primary, 11-12.5 "wider" than in the two former specimens; these latter can only be breeding birds, the difference in the wing formula is significant. I expressed my surprise when, having noted this Reed-Warbler as particularly numerous in April, I failed to meet with it in December of the same year. This is not remarkable but at the time was not rightly understood as the birds were evidently absent from their breeding haunts in the winter. Undoubted *Acrocephalus* eggs have been laid aside during my long residence in the east and it is only recently that I have been able to verify my contention that breeding birds of two races of *Acrocephalus* did exist in the Plains of Upper Assam. Whilst my skins are deficient in number; seven clutches of eggs have been examined.

Dr. Hartert gives the wing measurement of "*concinens*," as somewhat shorter than typical "*agricola*" which is stated ♂ ♀ 55-60.5, "*haringtoni*" ♂ 56-58, ♀ 54-58.

The habits of *A. agricola* are said to be "very aquatic." I only found this to be the case with the bird obtained in the "cold weather."

Contradictory data in respect to the habitat of this species and also *A. dumentorum* which also occurred during the winter puzzled me considerably. I found *A. stentorea* a terrible skulker but at the nesting time the birds might almost be said to breed in colonies as all my eggs came from a limited area.

My cold-weather migrants have the 2nd primary between the 6th and the 7th, which is the wing formula for typical *A. agricola*, whereas the 2nd is equal to the 10th in the breeding bird and in this character is nearest to *A. concinens*. Mr. F. C. Stuart Baker has described this race as *stevensi*†, and after comparing 60 eggs of *A. s. brunnescens*, av., 22.7×15.9 , with the eggs of the "dark" breeding race of *stentorea* in Assam, which are darker, more brown and less green, 20 eggs average 19.6×15 , has named this race *amyæ*, wing, 83, in honour of my wife. The type specimens of these two new *Acrocephali* have been presented to the British Museum.§

Soft parts in "*agricola agricola*," (January): Iris olive-brown; bill upper mandible and tip of lower mandible blackish-horny, remainder horny-white; tarsus brownish-horny. "*agricola stevensi*," (April): Iris olive-brown; bill upper mandible blackish-horny, commissure line pale, lower mandible horny, darker towards tip; tarsus, brownish-horny.

129. The Turkestan Grasshopper-Warbler. *Locustella nævia straminea* (Severtz.).

Recorded for Native Sikkim: a specimen having been procured in June which is an immature bird collected in 1876 and represents the Sikkim material in the National Collection.

† Represented in the B. M. Coll. by other specimens from the Bramaputra "churs" collected by Godwin-Austen.

§ Descriptions in the Bulletin B.O.C. VOL. XLIII, No. CCLXXI, pp. 16 & 17.

130. The Spotted Bush-Warbler. *Tribura thoracica* (Blyth).

Mandelli is mentioned in Hume's "Nests and Eggs" as having obtained it on three occasions, breeding in July at Yendong ? (Tendong) and Gammie on one occasion near Rungbee in June at 5,000', a specimen in the B. M. Coll., is dated 15-6-75, female snared on the nest and probably refers to this record. There are other six specimens collected in every month from February to June and one in November and also a single specimen from the Bhotan Dooars, February, 1876, all of which are Mandelli's skins. This material has furnished Oates with its status as a nesting species and occurring up to 9,000'. It has in recent years been obtained on Phalut in the summer. (C. M. Inglis).

131. The Brown Bush-Warbler. *Tribura luteoventris* (Hodgs.)

Recorded under *Tribura mandellii* for Sikkim (February to May). Represented in the B. M. Coll. by Hodgson's specimens from Nepal and Mandelli's specimens from the Bhotan Dooars and Native Sikkim, from which last area there is one, dated June 1874. Mr. C. M. Inglis has obtained it on Phalut in the summer and this was apparently the species I saw at Lachung at 9,000' on the 28-2-20*, unfortunately none were secured out of the small party, of which an odd bird or two were noted on this single occasion, as they were on the move in and about some scanty vegetation, and could have hardly been *Suyas* at this elevation in the winter, although they appeared to be a sedentary species to the valley.

132. The Indian Tailor-bird. *Orthotomus sutorius sutorius* (Forst.).

At the foot of the hills, this Tailor-bird frequents light, open forest, but does not penetrate the forest depths. Resident up to 4,720' in the Rungbong Valley, an odd pair or so frequent the compound of the Gopaldhara Bw. and may be seen either in winter or summer. Obtained around Mangpu at 3,600', (G. E. Shaw) above the Tista Valley, where formerly Gammie obtained it. Gangtok at 5,800' and lower, 21-2-20*, it was much in evidence to judge by its high-pitched note, yet not actually observed in the dense scrub-growth which it was frequenting. Gopaldhara, 4,500', 28-5-23. Three fully fledged youngsters almost ready to leave the nest.

133. The Black-necked Tailor-bird. *Orthotomus atrogularis* (Temm.)

Its distribution is stated as Lower Ranges of the Himalayas from the Rangit River in Sikkim to the Dhansiri Valley, Assam. It is somewhat remarkable that all the specimens I have procured at the base of these hills have all been *O. sutorius* and I have singularly failed to meet with it anywhere along the foot-hills of the Eastern Himalayas. The only locality in Upper Assam where it occurred was above Margherita to the east, and Mr. E. C. Stuart Baker informs me it had a habitat distinct from *O. sutorius* being confined to the forest and not found in the open surroundings.

As I could only find the Dhansiri Valley specimen in the B. M. Collection, I requested Mr. N. B. Kinnear for information and he reports that this species is not represented from west of Assam. In view of this fact it certainly seems as if the recorded distribution will have to be altered and this Himalayan portion of its range eliminated, notwithstanding Mandelli is said to have obtained its nest and eggs near the Great Rangit River.

134. Franklin's Wren-Warbler. *Franklinia gracilis*
(Frankl.).

Recorded as "ascending the Himalayas to considerable elevations, and specimens as having been collected at Darjiling and in Native Sikkim." I have no record of this Wren-Warbler in these hills, which commonly occurs at plains-levels. Mr. G. E. Shaw has obtained a *Franklinia* in the Tista Valley at elevations of from 2,000'-4,000' which he puts down as *F. rufescens* and I observed at Gitingy, 1,100', 12-2-14*, a party of eight to ten birds on the maidan above the Mahanuuddi, which I considered were also this same species. I doubt very much if this bird or any other member of this genus ever "abandons its accustomed haunts on the approach of winter" as these birds are strictly sedentary. It is more likely that all the specimens that Oates went through, came from the valleys in Sikkim.

This remark has no reference to its distribution in the North-West Himalayas. This genus appears to be in an unsatisfactory state, both in regard to the characters, habitat and distribution of each species. My notes can only serve to draw attention to the difficulties with a view to the ultimate clearing up of several knotty points which seem to me obscure.

In the Bhotan Dooars, January 1922, there occurred two species of *Franklinia* in small parties occupying distinct habitats. The bird I regard as *F. gracilis* was only to be found in the more open country, frequenting scrub-growth in the dried-up beds of the river channels, outside of the heavy forest, about two miles south of Bhotan Ghat on the Raidak River, 29-1-22, ♂ Bill from base 14 wing 46. 29-1-22, ♀ Bill from base 13·5; wing 44.

Soft parts: Iris ochreous-brown; bill blackish-horny; tarsus ochreous fleshly; claws, pale horny-black.

Coloration.—Upper surface dark rufous, the tail tipped with white; which character appears to be constant in this species, yet the bills in both these two specimens are stronger than any of the following birds from Assam which have been measured for comparison.

Upper Assam, Dibrugarh District, Margherita. (Base of the hills to the east). 23-11-03, ♀ Bill from base, 12; wing, 44. In coloration agrees with the two former specimens.

Rungagora, (Plains), 6-4-03, ♀ Bill from base 12; wing 42.

Rungagora, (Plains), 13-4-03, ♀ " " " 11·5; wing 43.

North Lakhimpur, Derpai, (Base of the hills to the west), 21-3-05, ♀ Bill from base 12; wing 42.

Coloration.—Upper surface a drab ashy, which is evidently the normal breeding plumage.

Dejoo, 15-6-04, ♂ Bill from base 12; wing 48·5.

Dejoo, 3-7-04, ♂ " " " 12·5; wing 48.

Dejoo, 16-7-04, ♂ " " " 12·5; wing 48.

Dejoo, 4-8-04, ♀ " " " 12; wing 45.

Coloration.—These four specimens are in worn breeding garb and show the well-defined ashy band on the breast.

Dejoo, 22-6-04, ♂ Juvenile, Bill from base 11; wing 43.

Dejoo, 12-8-04, ♀ " " " " 11·5; wing 44.

No use for comparison, being young birds which have not long left the nest.

Coloration.—Pale ashy-rufous on the upper surface, below, white on the throat to breast, pale rufous on the belly; "tips to tail white."

Dibrugarh District, Rungagora, 16-1-03, ♀, Bill from base 12; wing 42.

Rungagora, 16-1-03, ♀, Bill from base, 12; wing, 41.

North Lakhimpur, Dejoo, 28-11-10, ♀, Bill from base 12; wing 44.

Soft parts: Iris dark ochreous-yellow or dark straw-yellow.

Coloration.—These last three specimens have the upper surface tinged with rufous and to a less extent on the flanks; the tips to the tail are white. There is no dark head as is said to be present in *F. rufescens*, and though the tarsi are darker; the bills are not a defined black, as is said to be the case with *F. gracilis*. All the same I consider them to be in a stage of plumage which appears to be referable to this species.

135. Beavan's Wren-Warbler. *Franklinia rufescens* (Blyth).

Bhotan Ghat, Raidak River, Eastern Dooars, 26-1-22, ♂♂ Bill from base 13.5-14; wing 45-45.5. Obtained out of a small party in light undergrowth inside the fringe of the heavy forest at the base of the hills.

Soft parts: Iris pale brown; bill horny-black, edge of the lower mandible pale; tarsus fleshy-white; claws horny.

These specimens appear to be referable to *F. rufescens*. The crown is slightly darker than the back in one example, but with the exception of the fulvous tips to the tail approach in their bright rufous coloration the last three specimens of *F. gracilis*. Oates makes this species to have a smaller wing and a larger bill than *F. gracilis*. There is no appreciable difference in any of these characters as compared to the birds recorded under *F. gracilis* obtained three days later in a different habitat; apart from the head, the rest of the plumage shows a marked resemblance to *F. cinereocapilla*. Apparently *F. rufescens* is more of a hill-species, and appears to have a restricted range along the base of the hills, and *F. gracilis* while extending right up to the foot of the hills and possibly in the valleys shuns the well-wooded tracts. The exact distribution of the two species from correctly identified specimens is desirable.

136. Hodgson's Wren-Warbler. *Franklinia cinereocapilla* (Hodgs.)

This Wren-Warbler occurs sparingly at the bottom of the Rungbong Valley and below Gopaldhara at an elevation of from 3,500'-4,500'. One secured on the 20-12-11, and a pair observed at 3,550' on the 4-7-16* in a thicket of reeds.

Blanford noted this species from Sikkim, yet Oates regarded his description as agreeing with *F. rufescens*. In my single specimen, I can detect no band behind the eye dark bluish-ashy, which colour is confined to the crown and nape, while the forehead is rufous, the supercilium is pale fulvous: broad in front of the eye, narrowing posteriorly over the ear-coverts which are dark fulvous; immediately in front of the eye is a dark spot on the lores. A minute description is very essential in the differentiation of the characters of the head in these *Franklinias*. The seasonal changes are difficult to follow, as the colour differences do not lend to easy description.

137. The Thick-billed Warbler. *Phragmaticola ædon* (Pall.)

Recorded for Sikkim, both British and Native. With the exception of two observations which are doubtful as no specimens were secured I have nothing on record respecting this Warbler which I knew as a cold weather visitor to the Plains of Upper Assam. Gopaldhara, 4,720', 28-9-16*, a bird came to my Kitson moth lamp at night which seemed to be this species. Turzum, 4,800' 18-1-12,* seen in "the tea" yet not near enough for a certain identification. Represented in the B. M. Coll. by three September and October specimens collected in 1876.

138. Tickell's Willow-Warbler. *Phylloscopus affinis* (Tick.).

Recorded "breeds high elevations in the Himalayas."

Only occurs *sparingly on migration at moderate elevations*. My observations have been extremely limited in regard to this Willow-Warbler.

Gopaldhara, 4,720', 9-4-17', one obtained. Chungthang to Toong at 4,500', approx. elevation, 12-3-20*, a few noted in the valley at one locality only. Blanford met with it in the Lachen and Lachung Valleys at 8,000'-9,000', but none before the 26th September. Recorded up to 15,200' in Tibet. (Walton).

139. The Smoky Willow-Warbler. *Phylloscopus fuliginiventer* (Hodgs.).

Recorded for Sikkim "14,000', Blanford," and merely noted in the months of "February to June, Mandelli." I have failed to meet with this Willow-Warbler, which commonly occurred during "the cold weather" in the Plains of Upper Assam. Oates states this species to be resident and is evidently quoting Blanford in reference to the specimen obtained on Momay Samdong in rhododendron scrub.

140. The Dusky Willow-Warbler. *Phylloscopus fuscatus fuscatus* Blyth.

Recorded distribution "Found in Nepal"; probably in summer, and in Sikkim certainly at that season if we identify with this species the bird of which Jerdon found the nest at Darjiling in July. Hodgson's *Horornis fulviventris* is undoubtedly this species as proved by his types (No. 878) in the British Museum, and Jerdon identified his Darjiling specimen with *H. fulviventris*. It seems unaccountable that I have totally failed to locate a single specimen of this Willow-Warbler in these hills. I found it just as common in the Plains of the Eastern Doorgas in "the cold weather," 1922, as it was at the same time of the year in the Plains of Upper Assam. They evidently either enter the plains to the east, or pass over the outlying hills during migration.

An examination of my material is detailed.

Upper Assam. (Plains).

Dibrugarh District.—

Rungagora.

♂ 25-1-03, wing 61.5; tail 46; 1st primary 20, (Dibru River), "very aquatic" noted on label.

♂ 15-10-03, wing 63; tail 45.5; 1st primary 20.5.

♂ 28-2-04, " 59; " 47; " " 21.5.

♂ no date, " 63; " 46; " " 22.

North Lakhimpur. Hessamara.

♂ 4-1-06, wing 63; tail 48; 1st primary 21.

Derpai.

♂ 14-3-06, wing 60; tail 48; 1st primary 21.

Dejoo.

♂ 15-3-10, " 61; " 48; " " 19.5.

Dibrugarh District—

Rungagora.

♀ 27-4-03, wing 59; tail 46; 1st primary 18

♀ 3-5-03, " 58; " 45; " " 18.

♀ 4-5-03, " 56.5; " 44; " " 18.

♀ 4-5-03, " 56.5; " —; " " 18.

Dejoo.

♀ 28-9-10, wing 56, tail 44; 1st primary 18.

Eastern Bengal. (Plains.)

Jalpaiguri District.—

Kumargram.

♂ 9-1-22, wing 63.5; tail 50; 1st primary 19.

♀ 9-1-22, " 57; " 45; " " 19.

These two latter specimens are more "dusky-olivaceous" than skins from Upper Assam with a "russet-olivaceous" tinge over the whole of the upper surface. Dr. Hartert gives the measurements of "*fuscata*": ♂ wing 60-66; ♀ 53-58, ♂ tail 53-58, ♀ 48-50; tarsus 20-22; culmen 12-13.5.

There appears to be more than one species amongst the above noted cold-season? specimens, though it is impossible to discriminate. I could never understand why this bird should remain in the plains of Upper Assam into May. I have recorded *fuscata homeyeri* (Dyb.) up to as late as the 22nd of May. It is well known that the birds of this humid climate have the tendency to exhibit a dark phase of plumage, and I shrewdly suspect a breeding Warbler will eventually turn up in the Plains. Against this conjecture is the fact that birds which have to accomplish a long journey to the far north invariably are late starters.

What was Oates's reason for stating "*fuliginiventris*" to be a resident species? a somewhat similarly coloured bird to "*homeyeri*," both of which occurred in a similar habitat in Upper Assam. It is to be presumed, he had seen specimens from the plains at even later dates than what I have recorded, unless his remark has no connection with the birds obtained in "the cold weather" at low elevations and only refers to Blanford's single specimen from 14,000', which would still be a contradiction.

141. The Grey-faced Willow-Warbler. *Phylloscopus maculipennis* (Blyth.).

Obtained on the Outer Ranges at Gopaldhara at as low an elevation of 3,700' 27-2-19, up to an altitude of 10,160', at Kalo Pokhari, 28-4-12. In the interior obtained at an elevation of 4,600', around Singhik, 23-2-20, and around Lachung, at 8,900', in the first week of March 1920, at which time it ranged the highest of all the Willow-Warblers. Commonly occurs around Gopaldhara at 4,700' and upwards, during December and January. Obtained on the Ghoom to Sookia Pokhari Ridge at 7,006', 19-1-12. On Jalapahar at 7,500', 14-2-20. Numerous in the station of Darjeeling during January and February. A series collected in the Mai "Khola" in East Nepal at 9,000' and below, during April 1912.

Thirteen specimens examined :

♂ Wing 48-51, av., 50. ♀ 45-48, av., 46.8.

142. The Orange-barred Willow-Warbler. *Phylloscopus pulcher* Blyth.

Recorded as a "resident where found and procured up to 13,000', Cho La Range (Blanford), in Sikkim." Obtained as low as 3,900' at Thurbo on the 2-4-11, and at 4,720', at Gopaldhara, 8-3-21 in the Rungbong Valley. The former record is evidently a late straggler, as a few birds were also obtained at 10,160' around Kalo Pokhari on the 12-4-12; but it was more numerous in the Mai "Khola" in East Nepal at lower elevations, 7,000'-10,000', March and April 1912. Plentiful around Gopaldhara at 4,720', November to February. *It can by no means be regarded as a resident as it performs an altitudinal movement.*

Fourteen specimens examined :

♂ Wing 54-61, av. 57.4. ♀ 55-58, av. 56.

143. Pallas's Himalayan Willow-Warbler. *Phylloscopus proregulus newtoni* (Gätke).

Occurs commonly around Gopaldhara from 3,500', 30-1-19, up to 5,800', 5-4-21. Obtained at all intermediate elevations, December to March, also obtained at the foot of the hills at Bhotan Ghat, Raidak River, Eastern Dooars, in January

1922. Mangpu at elevations of from 3,500'-4,000', (G. E. Shaw). This Willow-Warbler is *confined to moderate elevations only as a breeding species*. Blanford records obtaining two specimens in Upper Sikkim at the end of September and the beginning of October.

Ten specimens examined : ♂ Wing 50-53, av. 51.7; ♀ 46-50, av. 48; one ♀ 5-4-21, actually has a wing of 55; this abnormal specimen has not been included. (Assam) skins for comparison. Seven examined : average, ♂ wing 54; ♀ 50.5.

Soft parts : Iris hazel-brown; bill, upper mandible dusky, lower mandible ochreous, dark at tip; tarsus dusky-ochreous; soles ochreous.

144. The Crowned Willow-Warbler. *Phylloscopus inornatus inornatus* (Blyth).

A series of four ♂♂, ♀♀ collected at Bhotan Ghat on the Raidak River Eastern Dooars, at the foot of the hills, 20—26-1-22.

Nurbong, below Tindharia at 2,240', ♂ 22-2-14. Thurbo, 3,900', ♂ 2-4-11. 4,300', ♀ 23—25-3-11. Gopaldhara, 3,700', ♀ 27-2-18. 4,000', ♀ 7-2-19. 4,720', 3 ♀ 19—23-12-11, ♀ 14-12-19, ♀ 9-3-18, ♂ 22-3-16. 4,650', ♂ 8-2-19. 4,720', ♀ 9-3-18, give the zonal distribution of this Willow-Warbler during January, February and March; some of the late records in March and April refer to stragglers in partial moult, exhibiting a drab phase of plumage. This Warbler is absent around Gopaldhara during "the rains" and probably retires to breed in the vast regions north, as I have failed to meet with it at higher altitudes. Obtained around Mangpu at elevations of from 3,500'-4,000'. (G.E. Shaw).

Eighteen specimens examined : ♂ wing, 56-60, av., 57.7; ♀ 51-57, av., 54.

The 1st primary varies in length and breadth measuring in 8 ♂♂, 11-15, av. 13.5, and in 11 ♀♀, 10-14.5, av. 11.8. There is also some individual variation in the depth of tone in coloration which seasonal change does not seem to account for; also it may be remarked on the wing-bar across the greater coverts, the spots sometimes show as well-defined and deeper coloured blobs, seeming to indicate a sign of immaturity, as the lengthening of the inner feathers in growth causes this bar to assume a more oblique position. It is similarly the case with other members of the genus.

Soft parts : Iris hazel; bill, upper mandible and tip of lower mandible dusky-yellow (dark olivaceous), deeper in yellow tone at base of lower mandible (pale olivaceous); tarsus and claws dark olivaceous (brownish-olivaceous); soles yellowish.

This Willow-Warbler is not recorded for Sikkim. My specimens are certainly this typical form. Until the type specimen of *P. inornatus mandellii* (Brooks.) has been compared and its correct status confirmed, it is quite impossible to define its distribution, even though it is recorded for Sikkim and the Khasi Hills. Judging from the original description; the "buff" supercilium seems to be the only reliable character for differentiation. Brooks infers it is likely to be resident. The clearing up of this matter which at present is very obscure, is most desirable.

In working out several difficult groups of Warblers, Chats, &c., I have had the advantage of Mr. Arthur Goodson's experience and knowledge.

145. The Greenish Willow-Warbler. *Phylloscopus nitidus viridanus* Blyth.

Recorded as distributed throughout the whole length of the Himalayas—Hazara country to Sikkim. I have no personal information of its status in these hills, having totally failed to locate it. Mr. G. E. Shaw has also failed with this species and the two following species.

One ♂ from Kumargram in the Plains of the Jalpaiguri District, Eastern Bengal, collected on the 9-1-22 in open-cultivated country, is referable to this Willow-Warbler. This specimen is "in moult"! Bill from feathers at base, 9; wing, 61.

Unfortunately this race is poorly represented in the B. M. Coll. from the Eastern Himalayas, and Sikkim appears to be east of its main distribution area; there is one specimen collected by Mandelli in May 1876 and one specimen labelled, Darjeeling, 15-1-79, *ex. Coll. E. W. Oates*, probably one of Mandelli's skins, also one specimen *ex. Hume Coll.*, Nepal, no data, and one specimen, Nepal Valley, 23-4-77, collected by Scully. Osmaston has recorded this bird breeding in Sikkim, Ibis, Vol. XIV, page 816.

146. The Large-billed Willow-Warbler. *Phylloscopus magnirostris* Blyth.

Recorded in summer "Himalayas:—Kashmir to Sikkim." I have no record of this Warbler in these hills; it must be of rare occurrence, and it is remarkable that "*Acanthopneuste*" should only be represented around Gopaldhara by "*trochiloides*." As the wing measurement overlaps in this species with "*lugubris*" correctly sexed specimens are essential, despite the different wing formula:—2nd primary between the 7th and 8th or between the 6th and 7th, taken in connection with the stronger bill ought to be sufficient for identification. Wing, ♂ ♀ 62-72. (Hartert.) Mandelli's specimens in the B. M. Collection are few, but there is an undoubted specimen collected in August 1880, which might, however, have been obtained in the higher regions beyond the actual boundaries of Sikkim.

147. The Dull Green Willow-Warbler. *Phylloscopus lugubris* (Blyth).

Blanford found this Warbler at 12,000'-14,000' on the Cho La Range and a 10,000'-13,000' or 14,000' in the Lachung Valley in the autumn.

As there are *two races or even species occurring in the Eastern Himalayas*, I have gone into some detail with a view to elucidating further evidence as to their identity and status. Singile La Ridge, Nepal-Sikkim Frontier, Kalo Pokhari, 10,160', 21-4-12. This morning I came across a small party of these birds on arrival at their breeding haunts; they had ascended from the valley below on the Sikkim side of the frontier. It is necessary to mention this fact, as this valley is densely wooded, and if these birds had not been wintering in the bottom of the valley, they must have entered the hills by way of the Tista and Great Rangit Valleys, as the stream which had its rise in the "pokhari" runs into the Lodhoma River, which again is a tributary of the Rammam River; all these waters flow into the Great Rangit River and find their outlet to the plains by the deep gorge of the Tista. I have never come across this Warbler wintering in the valleys or at moderate elevations, and it is somewhat curious such an apparent, roundabout route should be chosen when the Mai Valley offered free access from the south, except perhaps for a deficiency of forest at its upper limits where the land has been partially cleared; this might have been a deterrent to an easy ascent as these birds had certainly worked up with the forest. The most feasible explanation appears to be one more instance of penetration into these hills, but in this instance, that of a migratory species by a route which is well marked. All specimens obtained on this occasion were males, and it is evident this sex arrives ahead of the female; two other ♂♂ were obtained on the 27-4-12 at elevations of 9,000' and 10,000' respectively, making a total of five secured. I never met with it anywhere else along this ridge. The first and only female secured, being snared on the nest on the 22-5-12. Nest composed of moss and fine bents lined with a few feathers and the hair of some small

rodent, probably *Microtus sikkimensis*? common hereabouts. It contained three pure white eggs measuring 16.2×12.6 , 16×12.7 , 15.5×12.4 mm.

SERIES A.

Six specimens examined:

10,160', ♂ 21-4-12. Bill from base 13, from feathers 9; wing 64; tail 49; 1st primary, 19; 2nd primary equals the 9th.

♂ Bill 12.5 and 8; wing 65; tail 49; 1st primary 18; 2nd between the 8th and 9th.

♂ Bill 13.5 and 9; wing 66; tail 49; 1st primary 19.5; 2nd equals the 10th.

9,000', ♂ 27-4-12. Bill 13 and 9; wing 64; tail 49; 1st primary 17; 2nd equals the 10th.

10,000', ♂ 27-4-12. Bill 14 and 9; wing 65; tail 49; 1st primary 18; 2nd equals the 9th. Average male wing measurement, nearly 64.9.

♀ 22-5-12. Bill from base, 12.5, from feathers 8.5; wing 58; tail 46; 1st primary 16; 2nd equals the 10th.

During a month's sojourn in the Eastern Dooars I found a Warbler, the exact counterpart of the former birds, differing remarkably in size. It was more plentiful in the open, cultivated country of the plains, frequenting the bamboo "baris" around the huts of the villagers, than it was in the heavy forest outskirts, in both of which localities I obtained specimens, but failed to make the most of my opportunity, as I merely put them down to "*lugubris*." The differences have only been brought out by comparison. This has necessitated an examination of my Assam material.

SERIES B.

Kumargram, (Plains) Jalpaiguri, Eastern Bengal.

(a) ♂ ad. 9-1-22. Bill from base 13, from feathers 9.5; wing 59; tail 45; 1st primary, 17; 2nd equals the 10th.

Bhotan Ghat, (Base of Hills) Eastern Dooars.

(b) ♀ ad. 22-1-22. Bill from base 12, from feathers 9; wing 55; tail 41; 1st primary 16; 2nd equals the 10th.

Gauhati, (Plains) Lower Assam.

(c) ♂ ad. 12-2-12. Bill from base 12.5, from feathers 8; wing 59; tail 42; 1st primary, 18; 2nd equals the 8th.

In all three examples the greater wing-coverts are faintly tipped with greenish white. The crown in the female is dark and only matched in this character by one male of the A series. Notwithstanding, No. (c) has a different wing formula, it appears to be nearest to this race. This specimen and the following five detailed below were recorded in my "Notes on the Birds of Upper Assam" under *P. nitidus plumbeitarsus*, Swinh. and my identification is confirmed by others owing to the presence of two wing-bars, which are either greenish-white or greenish-yellow. This character appears to be present in birds-of-the-year in this form of *P. lugubris*, whereas the tips of the greater wing-coverts in "*plumbeitarsus*" are often of a more defined white; these specimens agree in the general dark coloration with "*lugubris*" even if the wing formula does not in some examples.

SERIES C.

Rungagora, (Plains) Upper Assam.

♂ 16-9-03. Bill from base 13, from feathers 9; wing 58; tail 42; 1st primary, 19; 2nd equals the 10th.

Silonibari, (Base of Hills) Upper Assam.

♀? 30-8-11. Bill from base 13; from feathers 8; wing 58; tail 43; 1st primary 17; 2nd equals the 9th.

Dejoo, (Base of Hills) Upper Assam.

♂ 12-9-10. Bill from base 14.5, from feathers 9.5; wing 61; tail 44; 1st primary 19; 2nd between 7th and 8th. ♂ 11-9-10. Bill from base 13.5, from feathers 8; wing 60; tail 47; 1st primary 18; 2nd equals the 9th. ♂ Bill from base 12.5, from feathers 9; wing 59; tail 42; 1st primary 19.5; 2nd equals the 9th.

The arrival of this Warbler at the foot of the Hills and in the Plains of Upper Assam at the end of August and in the second week of September before the termination of "the rains" may or may not have any significance in reference to a short journey from their breeding grounds, but the small birds in Series B, I venture to surmise will be found to be a form breeding somewhere in the foot-hills with probably only a limited extension into the plains at the cold weather and this may be the solution of the status of the birds in Series C, as these measurements average less than the birds in Series A, which are typical "*lugubris*" but here again these measurements are in excess of Dr. Hartert's. Wing, 59-62, seldom only 57, frequently up to 64.5. My shortest and longest measurement is 55 and 66 respectively, when birds from the combined areas are taken into consideration.

P. nitidus plumbeitarsus is very close to *P. lugubris*. The only reliable characters are the "whitish underside", "very pale on the throat."; the under wing-coverts and axillaries are brighter, the breast is generally stippled with yellow as occurs in "*trochiloides*" and a "finer 1st primary." Whilst the wing formula, 2nd between the 7th and the 8th, is fairly constant, some examples of "*lugubris*" are similar in this respect, as well as having the double wing-bar, but a difference in some of the before mentioned characters will suffice to eliminate "*lugubris*" when a series is compared. In general "*lugubris*" is coloured a more "dusky-olivaceous below and above" and sometimes has a darker head. When "birds of the year" from Upper Assam are concerned, the difficulties are apparent, which is not the case with typical birds from Sikkim. "*plumbeitarsus*" also appears to be a slighter bird which would be more obvious in life. As there is such an appreciable difference in the size of the sexes in all the species of *Phylloscopus* it is most essential that the measurements of each sex be stated separately.

Blanford speaks of his specimens from the far interior at high elevations as having distinct whitish tips to the wing-coverts. These specimens may well have been "birds-of-the-year."

148. Blyth's Crowned Willow-Warbler *Phylloscopus trochiloides* (Sundev.).

Recorded in summer as having been observed in the Himalayas from Kashmir to Sikkim and as "probably wintering in the lower valleys of these parts." A series of four ♂ ♂, three ♀ ♀, obtained at Bhotan Ghat, (Base of the Hills) Raidak River, Eastern Dooars, 20—24-1-22. Gopaldhara, Rungbong Valley, Darjeeling, 3,750', ♂ ♂ 2-10-19, 5,500', ♂ 4-11-20, 3,500', ♂ ♀ 25-3-11, 6,000'. ♂ 25-3-20. Mai "Khola", East Nepal, 8,500', ♂ 27-4-12, give its zonal distribution fairly accurately during the "cold weather" months and towards the breeding season, as there is little doubt that it breeds at 6,000' and upwards. I have since found the nest containing a juvenile cuckoo, June 1923, at 6,300', above Seeyok.

Thirteen specimens examined :

♂ Bill from feathers at base 9-10, av. 9.2; wing 56-60, av. 58.6.

♀ " " " " " 9-9.5, av. 9.1. wing 55-58; av. 56.3.

Soft parts: Iris hazel (hazel-brown); bill, upper mandible dusky-yellow, lower mandible yellow or pale yellow; tarsus pale yellowish-plumbeous (yellowish-green); soles paler yellowish-plumbeous (deeper yellowish-green).

All these specimens have the two outer tail feathers slightly margined on the inner web with white.

I have not obtained this Warbler in the Interior of Sikkim. It is evidently confined to the Outer Ranges during the breeding season, descending to lower limits during "the cold weather."

149. The Allied Flycatcher-Warbler. *Cryptolopha affinis* (Horsf. & Moore).

Observed plentifully in the *Tista Valley* where it has been obtained up to an elevation of 5,800'. (G. E. Shaw). I have failed to locate it in the Rungbong Valley at anything approaching this elevation. All my records refer to *C. poligenys*. It is somewhat a difficult matter to discriminate between the two species, even when observed at close quarters under good conditions.

150. The Black-browed Flycatcher-Warbler. *Cryptolopha burkii burkii* (Burton).

Apparently this Flycatcher-Warbler has the widest zonal distribution in comparison with the other members of this genus. Common on the *Singile La Ridge* at 10,000' in April and May. Obtained in Nepal and Sikkim. Numerous records from 3,400' and upwards in the Rungbong Valley, and obtained as low as 2,000' in the Tista Valley. (G. E. Shaw). There is every likelihood that it occurs at much lower limits during the cold-season, yet it is strictly not migratory, and it was observed on numerous occasions in the Eastern Dooars in January 1922. Obtained at Bhotan Ghat on the Raidak River, ♀ 24-1-22. Blanford obtained one specimen at Lachung on the 28th September.

Eight specimens examined :

♂ Wing 58-60, av. 59·2. ♀ 53-56, av. 54.

These measurements average slightly larger than a series of five specimens from Assam. ♂ Wing, 57-58, av., 57·7. ♀ 52-53, av., 52·5.

This difference is not surprising and might almost be expected, as more frequently than not, specimens of all these small and other Warblers which have been obtained at the extreme upper limits of their zonal distribution, have a tendency to show a larger wing measurement than other specimens obtained at lower levels, in species which merely move to some slight extent according to season.

151. Brooks's Grey-headed Flycatcher-Warbler. *Cryptolopha xanthoschistos jerdoni* (Brooks).

Hodgson speaks of this form and the typical bird as breeding in Sikkim and Nepal up to 6,000' or 7,000'. It occurs commonly at all elevations up to 5,000 and obtained above Mangpu at 5,300, (G. E. Shaw). Generally distributed over the whole area, and apparently the most plentiful of all the Flycatcher-Warblers.

A series of three ♂♂, eight ♀♀ Sikkim skins measure :

♂ Bill from feathers at base 7·5-8·5, av. 8 ; wing 52-55, av. 53·6.

♀ " " " " " 7·5-8·3, av. 7·6 ; wing 50-55 ; av. 51·7.

In comparison a series of six ♂♂, two ♀♀ Assam skins measure :

♂ Bill from feathers at base, 7·5-8, av. 7·8 ; wing 48·5-54, av. 50·6.

♀ " " " " " 7·3-8, av. 7·6 ; wing 47-50, av. 48·5.

One Bhotan Dooars specimen ♀ Bill from feathers at base, 8 ; wing, 49.

Sikkim birds on the whole certainly show more ashy-grey colour on the forehead, crown and nape in comparison with Assam birds which are typical in having these parts coloured blackish-ashy. The measurements however prove the former to be this race.

152. The Grey-cheeked Flycatcher-Warbler. *Cryptolopha poliogenys* (Blyth).

Occurs in moderate numbers around Gopaldhara at 4,700' in the Rungbong Valley, and observed sparingly around Kalo Pokhari at 10,160' on the Singile La Ridge in April and May.

153. The Chestnut-headed Flycatcher-Warbler. *Cryptolopha castaneiceps* (Hodgs.).

Generally distributed at all elevations up to 6,500' at all events.

Apparently more plentiful from about 4,500'-6,000'. Obtained above Mangpu at 6,300', (G.E. Shaw). Mai "Khola", East Nepal, 26-4-12; Gopaldhara, 4,720', 3-11-20; 5,000', 1-11-18. Namsoo, 2,100'; 13-3-14. A party of about fifteen of these birds amongst which was intermingled a small assortment of *Abrornis albugularis* and possibly an odd pair of *C. cantator*. Bhotan Ghat, Raidak River, Eastern Dooars, 23-1-22; obtained and observed on other occasions. It more often than not keeps to the leafy branches of the lofty trees, and does not frequent the lighter, yet denser vegetation, to the same extent as the other members of the genus.

Semana-Mirik Ridge, 6,000'-6,500', May, June 1923. I found six nests in all containing both eggs, in one instance a single egg of *Chalcococcyx maculatus* along with the three eggs, one of which was broken, slightly incubated and forsaken on the 22nd of May and in other two cases, single juvenile cuckoos of this species, females, the sole occupants. On the second occasion I visited one of the latter nests at dusk; I was struck by the chestnut head being so prominent as to lead me to believe the parent bird was in possession.

Whilst it would be, perhaps, rash to hazard a guess that the majority of the eggs laid by this Cuckoo in this *Cryptolopha's* nest will prove to produce females and that the eggs laid, for instance in the nest of *Aethopyga saturata* will turn out to be males; yet it would only be in keeping with what we might expect of nature's harmonizing methods.

It builds in the dark recess of an overhanging bank, constructing the usual compact cup-shaped nest of moss, like its congeners with the entrance more often than not facing the bank and opposing its main means of ingress and egress. Although its habits in nidification allow of careful concealment; there is little doubt it suffers depletion of its numbers and eggs through the wiles of snakes, when the brooding parent bird completely disappears with its charge.

The full complement of pure white eggs, steel transparent, is three.

A small party seen on the 13-6-23* were probably composed of the parents and young.

Four specimens examined; wing, 48-50, average, 49, which similarly compares with Assam specimens. The measurements show no appreciable difference between the sexes, which a large series would possibly refute.

Soft parts: Iris brown; bill upper mandible dark horny, lower mandible pale horny; tarsus dusky-horny.

154. Tickell's Flycatcher-Warbler. *Cryptolopha cantator* (Tick.).

Mandelli obtained numerous specimens of this species which are in the National Collection, but it appears to be locally distributed, and only occurs sparingly at moderate elevations. Obtained on one occasion at Gopaldhara 3,500', in the bottom of the Rungbong Valley, 25-3-11, ♀ Bill from feathers at base 9; wing 51.